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ABSTRACT

This paper describes the practical steps employed in controlling interview data generated from a research project investigating teachers' perspectives on the worth of a sex equity educational demonstration project. These perspectives were then considered as value frameworks that might be used to formulate and interpret a naturalistic-responsive project evaluation. Qualitative data were obtained from 25 elementary and secondary teachers through their written reactions to a 26 page summary portfolio of project-related evaluation data, and the tapes and transcripts from two semi-structured interviews. The written reactions provided the initial focus for the interviews. Questions for later interviews were derived from previous responses, as were requests for clarification of the respondents' line of thinking. (GDC)

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CONTROLLING QUALITATIVE DATA: UNDERSTANDING TEACHERS' VALUE PERSPECTIVES ON A SEX EQUITY EDUCATION PROJECT

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CONTROLLING QUALITATIVE DATA: UNDERSTANDING TEACHERS' VALUE PERSPECTIVES ON A SEX EQUITY EDUCATION PROJECT

My purpose today is to describe the practical steps I employed in controlling interview data generated in a recent research project. The research project was designed with a phenomenological orientation, e.g., I tried to gain an understanding of events from actors' own frames of reference. There were two major components of the research project. The first component was to generate, through teachers' reactions to a "portfolio" of evaluation data and two semi-structured interviews, teachers' perspectives of the worth of a sex equity educational demonstration project. The second component was to consider these perspectives as value frameworks that naturalistic-responsive (N-R) evaluators might use to formulate and interpret a developed or pending N-R evaluation story. This paper emphasizes data controlling activities undertaken during the first component of the research project.

Twenty-five teachers were interviewed, representing eleven Project elementary and high schools.(1) The primary method of data collection was two semi-structured, tape-recorded interviews. Teachers were asked about their experiences with, perceptions of, and conclusions about a sex equity education project. To set a context for the interviews each teacher took two hours to read and react to a twenty-six page summary "portfolio" of project-related evaluation data. The portfolio served as a stimulus and initial focus for the interviews. Teachers' brief, initial written reactions to the portfolio and the more extensive interview tapes and transcripts were the qualitative data analyzed for the study.

This research is an example of research controlled by what Miles and Huberman (1984) referred to as a "a one person research machine."(2) I was the primary individual responsible for design, data collection, data analysis, and reporting. This research is also an example of dissertation research and carries some of the special considerations inherent in a project designed to be simultaneously a learning experience and a contribution to knowledge.

The following discussion is organized as a data analysis "chronology." It is largely a methodological discussion. First, I will describe cursory analyses attempted during interview data collection, then I will discuss a data organization and description phase followed by discussion of a data interpretation and translation phase. I will conclude by highlighting the use of the portfolio as a focusing device for the research study.

A DATA ANALYSIS "CHRONOLOGY"

The primary data analyses occurred after the interview data were collected; however, some cursory analyses were attempted during the data collection process. Analysis and review of teachers' written remarks on the portfolio resulted in additional "lines of questioning" for the first interview. Likewise, after listening to the recording of the first interview and prior to the second one, I organized a rough summary of a teacher's line of thinking. I presented this latter summary verbally to a teacher with requests for clarification, amplification and additions. Each of thse cursory reviews with a teacher helped focus the subsequent interview on the conceptual direction of the research project, namely, what conclusions were being drawn by this teacher about this sex equity education project and why.

More extensive data analyses occurred after the data collection period. This was the time when I alone "grappled" with the data with no recourse of further validity checks with the teachers. This was the period when the main reduction, organization, and analysis of the data occurred.

Slightly more than thirty hours of interview tape recordings resulted in 346 pages of interview transcripts. I prepared a file folder for each teacher containing audio recordings, transcripts of each interview, teachers' written reactions to the portfolio, my notes and interview analyst's notes. Essentially, these fat folders of qualitative data were treated as "documents" requiring content analyses.(3) I approached the task of data reduction as an outsider doing a hermeneutic analysis.(4) The following discussion describes the data organization and analysis steps used in the research.

Data Organization

Initial data organization required that I "clean up" the transcripts, organizing them for further analyses. This data organization phase also helped me reacquaint myself with the data. It was a time when I suspended a persistent urge to interpret the data.

1. Getting reacquainted with the data. Two months passed between the end of data collection and the time when final typewritten copies of the transcripts were available. I did not type the transcripts myself and did not listen to recordings during this time. Getting reacquainted involved a passive reading of the transcripts, learning again who these teachers were and what they were talking about. Each transcript was read twice in this manner.

2. Enlivening the transcripts. This next step involved simultaneous reading of each transcript while listening to the tape-recording of each interview. I made notations on the transcripts of certain emphases, inflections or qualities of phrasing that might help me later understand (for example) the force or humor intended in a transcript passage. Invariably, there were omissions in transcripts where a tape-recording must have seemed unintelligible to the transcriber. I ended up "editing" some of the transcripts and filling in blanks.
3. Separating potential frame talk from non-frame talk. Since an object of this research was to understand teachers' value frameworks for drawing certain conclusions about a sex equity project, teacher talk that seemed irrelevant was discarded. Examples of non-frame talk included discussions of the weather, local automobile traffic patterns, questions about the researcher's background and interests and the like. Actually, in most cases, this amounted to a reduction of one or two sentences per transcript and at most a paragraph or two. The point is almost all interview talk by the teachers was treated initially at least as potential frame talk.

Data Interpretation

This section summarizes the incremental steps I used to code and interpret the interview data. Levels of coding schemes were used, and these were devised in a "grounded" fashion. "Grounding" here means that codes for analyzing the interviews were derived from repeated readings of the transcripts and were not formed *a priori*. Two general categories of codes were

devised: descriptive codes (steps 4, 5 and 6) and explanatory codes (steps 7 and 8). The descriptive codes required little interpretation on my part. The explanatory coding represented my attempt to interpret and translate the meaning of selected passages. Coding in this research project was an informal activity. I used short phrases to label certain passages as a convenient way of managing a mass of narrative. These labels were my codes.

4. Initial listing of topics discussed. I began the data interpretation phase noting on a separate piece of paper the topics mentioned in each paragraph, page by page. This step marked the initiation of notation and data record reduction on forms other than the transcripts. In the previous three steps, I wrote margin notes, underlining and brackets on the transcripts. This process of listing topics by paragraph and transcript page number was done twice, occasionally resulting in the alteration or changing of a topic descriptor. Table 1 shows a list of descriptors I used during this step for one teacher's transcript analysis.

5. Identifying passages addressing portfolio content. The passages in the transcripts that reflected teachers' remarks about the content of the portfolio were underlined on the list of topics outline. By looking at a teacher's comments about the portfolio, I gained an early indication of their favorable or unfavorable inclinations toward the project and sex equity as an issue.

6. Classifying teachers' conclusions about the project and sex equity. Next I looked for the teachers' judgments of the Project -- its success or failure -- and their reasons for this judgment. This step

involved a series of re-readings of the transcripts to try and identify what was said about the Project and what was meant by said comments. In the same way, I looked for teachers' conclusions about sex equity as an educational and personal issue. After this pair of reviews I labelled teachers according to assessment of the project and their favorable or unfavorable inclination towards sex equity as an issue.

7. Labelling prominent themes in teachers' passages. Next, I began a process of explanatory coding. Here I labelled passages according to my conceptions of what a passage meant. In large part these prominent themes were the reasons and assumptions teachers seemed to use to explain their conclusions about the portfolio, the Project and sex equity as an issue. Examples of these labels and the number of transcript pages these labels spanned are given in Table 2. As you can see in Table 2, sometimes a similar theme was repeated at different points in a teacher's transcript. Other times, a single stream of commentary was labelled in this fashion. Passages like those in Table 2 were noted in pencil on the transcripts. These labelled passages began to shape my thinking about a value framework that a teacher might be using to explain some conclusions about an event or issue.

8. Moving from individuals to groups: Identifying frames of reference. This was the most "interpretive" step of the data analysis. Moving from analysis of individuals to analysis by groups actually involved a series of steps and trials in classifying the teachers according to some value frameworks. Ultimately, this step was another level of

explanatory coding. The phrase I chose to identify this class of labels was "frames of reference." A frame of reference label for groups of teachers was devised to capture the general point of view a group of teachers used in reaching their conclusions about the Project. Teachers talking about like things, such as, good Project work, traditional family values, and poor change strategies in education, were placed in groups.

The previously mentioned prominent themes' passages and teachers' conclusions about the portfolio, sex equity and Project success were the core elements of teachers' comments that I used in this process of grouping teachers. Essentially these "core" passages were extracted from their text and stacked with other similar passages by other teachers. I reviewed these stacks of passages repeatedly to determine what frame of reference label might capture the intent of what these teachers were saying.

This process of labelling frames of reference was largely a substantive process, e.g., I looked at the substance of teachers' remarks for similar forms rather than looking at their roles, sex, grade level, and the like. In order to see if groupings of teachers followed these latter "demographic" lines, I tried grouping teachers by school-level, race, sex, and sample status (active teacher, inactive teacher or school counselor). These latter groupings did not produce groups of teachers with common patterns of conclusions and reasons for conclusions.

Another way of looking at the scope of teachers' remarks was to look at the boundaries implied by teachers' remarks. A few teachers'

interviews focused entirely on school building issues and Project staff efforts and personalities. Most others spanned other topics like personal life histories; family, church and state issues; legal, political and health contexts; and recent national events. This method of reviewing the boundaries of teachers' commentaries was a minor step, but identifying the scope of boundaries helped differentiate the few "one track" teachers from the others.

In the end, six prominent frames of reference were labelled. The frames of reference represented the points of view of teachers with similar perspectives on the Project and their conclusions about its worth. Not surprisingly, teachers who were pro-equity were also pro-Project; likewise, teachers who were <u>not</u> pro-equity were also less likely to see the Project as a success. Three frames of reference reflected a "pro" position and three a "con" position. The six frames of reference are listed in Table 3.

CONCLUSIONS

In summary, the steps I used to control the qualitative interview data were organized within a "grounded" informal coding scheme. Miles and Humberman (1984, p. 57) noted accounting schemes that covered a wide range of codes. The interests of this research were narrowly focused on teachers' reasons for conclusions about a specific project. I placed less emphasis on the adequacy of their descriptive accounts of setting and activities (for example) and more emphasis on their explanatory connections about perceived events and their interpretations of consequences.

Whenever one attempts to understand what is going on in someone's head, currently available data collection methods and analysis procedures seem hopelessly inadequate. However, in the face of such constraints I selected interviewing as the method of choice and a variation of "document" analysis as an analytic technique.

The data analysis steps outlined in this paper were repeated several times. One simple pass through the phases of analysis did not produce immediate results. I made several passes through the data interpretation phases. Essentially, the several passes characterized the analytic "stance" I operated from. My analytic stance was a responsive one. Consistent with a phenomenological, case study approach, I tried to withhold interpretation activity until I had repeatedly reviewed the teachers' words telling the story of their points of view.

In closing I want to highlight the use of the device of the portfolio as a stimulus to the later interviewing work. In this research study the portfolio may be considered a loose, parallel representation of Pinar's (1978) "text" (5), particularly when he discusses text as pretext. Pinar states, "As one attends to the experience of the text, the text becomes smaller in a way; it becomes in a sense a <u>pretext</u> for attention to one's own issues." In this study teachers' reactions to the portfolio served as a lead-in to understanding their broader frames of reference. The frames of reference reflected varying claims of the worth of the sex equity project.

NOTES

1. The study was conducted during the final year (1983) of a four-year national sex equity demonstration project undertaken by Broward County Schools, Fort Lauderdale, Florida.

2. Miles, M.B. and A.M. Huberman. Qualitative Data Analysis. Beverly Hills, CA: Sage Publications, 1984 (p. 230).

3. Andre, Marli (1982). "Content analysis and its uses in educational evaluation." University of Illinois at Urbana-Champaign: Center for Instructional Research and Curriculum Evaluation.

4. Hermeneutics is an approach to analysis that takes into account the fact that meaning is socially and historically bounded, both for the investigator and for the people being investigated. For a more extensive discussion of hermeneutics see: Dryzek, J. (1982) "Policy analysis as a hermeneutic activity." Policy Sciences, 14, pp. 309-329; Smith, J.K. (1983) "Quantitative vs. interpretive: The problem of conducting social inquiry." New Directions for Program Evaluation, 19; and Taylor, C. (1971) "Interpretation and the sciences of man." The Review Of Metaphysics, 25, pp. 1-37.

5. Pinar, W. (1978). "Currere: A case study" in Willis and Adams (eds) Qualitative Evaluation. Berkeley, CA: McCutchan Publishing Co.

Table 1. List of Descriptors for One Teacher

Beth: A high school special education teacher

Transcript Page No.	Researcher's Descriptive Phrase	Portfolio Reference
	-- first interview --	
1	Principals' attitudes	Y
1	Teachers are overburdened	Y
1,2	Voluntarism won't work	Y
2	Teacher inservice	Y
2	Need for sex equity awareness	Y
2,3	How to do inservice	Y
3	Small cadre won't work	Y
3	Curriculum integration	Y
3	Sex equity is a minor barrier	--
3,4	Economic equity is imperative	--
4	Boys and girls know more today	--
4	Adult males have difficulty	--
4	Need to prepare girls	--
5	To work is to be cheated in raising a family	--
5,6	Church, sex equity and law	--
7	Role of Schools in sex equity	--
7,8	Language (s/he) is a nuisance	--
8	Sex equity awareness	--
8,9	Awareness and language	--
9	Adult males	--
9	Church, personal beliefs and sex equity	--
9,10	Language	
	-- second interview --	
11	Curriculum is a monster	--
11	Race equity	--
12	Teachers are re-active	--
13	Changes in her philosophy from open schooling to back-to-basics	--
13,14	Personal experiences and perspectives on standardized tests	--

Table 2. Examples of Prominent Themes Labels
(for six individual teachers)

Framework		Examples	Transcript Page Nos.
PE	-	Concern for students	10,11,12
C	-	A challenge to convert others	1,2
SA	-	An activist view of change	1,3,8,7
SC	-	Barriers to innovation	3,4,5,6
F	-	Fundamentals in law, economics, marriage and faith	1-7
M	-	Preserving "true" equity	3,9,13,19

Table 3. Six Frames of Reference

	Label	Number of Teachers	Equity Position
1.	Project Endorsement	4	Pro
2.	Conversion to Sex Equity Principles	3	Pro
3.	Social Advocacy	4	Pro
4.	Social Criticism	6	Con
5.	Fundamentals	4	Con
6.	Maintaining the Status Quo	4	Con